Forward

Welcome to the Port of Vancouver, Canada's largest port. The Port of Vancouver is administered by the Vancouver Port Authority (VPA) in accordance with the Canada Marine Act.

VPA is committed to facilitating and expanding the movement of cargo and passengers through the Port of Vancouver by providing facilities, services and technologies that are competitive, safe, commercially viable, dependable and customer oriented.

The Harbour Operations Manual provides information on practices and procedures established to provide a high level of safety, operational efficiency and environmental protection for vessels utilizing the Port.

If you have any questions or comments regarding the Harbour Operations Manual, please contact the Harbour Master's office at (604) 665-9086 or via E-mail at harbour_master@portvancouver.com.

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1.0 ANCHORAGES

1.0 ANCHORAGES

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1.1 ANCHORAGE REQUESTS

Anchorages will be assigned 24 hours prior to the arrival of a vessel providing at least 24 hours notice is given. However it is understood that some requests due to emergencies, berth delays etc. may require immediate assistance.

The Duty Harbour Master may be contacted at any time after office hours through Vancouver Marine Communications and Traffic Services Centre (MCTS) AT 666-6011.

In addition, an English Bay anchorage, Inner Harbour anchorage & Indian Arm anchorage are reserved daily for emergency use.

All anchorage allocations for the next 24 hours are forwarded to MCTS daily and may be checked with them at any time.

1.2 ANCHORAGE INFORMATION

When making an anchorage request the following information should be given to the Harbour Master's office or Duty Harbour Master.

- name of agency handling ship
- name of agency representative requesting the anchorage
- ships name
- ships length overall
- ships estimated time of arrival at Vancouver
- ships estimated length of stay at anchor
- type of cargo to be loaded/discharged
- any other pertinent information:
 - part-loaded
 - taking bunkers
 - machinery defects
 - 2nd Narrows transit, etc.

1.3 INNER HARBOUR ANCHORAGES

There are 7 anchorages available between 1st & 2nd Narrows.

	Max length of	
Anchorage	Vessels (meters)	Remarks
A	185	
В	260	
C	260	
D	185	
E	155	
X	155	
Y	260	Pilot to remain on board
		due to adverse current
		conditions.

Preference for these anchorages will be given to vessels requiring to bunker, lime wash, crew change, transit 2nd Narrows or any other reasonable purpose. These anchorages will usually be assigned for short periods. The period might be extended on request if there are no other ships requiring inner harbour anchorages.

There are 4 anchorages available east of 2nd Narrows in Indian Arm.

Anchorage	Max length of Vessels (meters)	Remarks
K	260	Preference to loaded vessels
L	260	
M	260	
N	260	

Indian Arm anchorages are available to vessels awaiting berth east of 2nd Narrows or awaiting West bound transit of 2nd Narrows.

NOTE: For vessels greater than 260 M or in an emergency, the Duty Harbour Master may offset an anchorage to allow the vessel to anchor. In such cases, safety will be the deciding factor.

1.4 ENGLISH BAY ANCHORAGES

There are 16 Anchorages available in English Bay.

	Max length of	
Anchorage	Vessels (meters)	Remarks
1	260	no part loaded or deep draft vessels
2	260	
3	260	
4	260	no part loaded or deep draft vessels
5	260	-
6	260	
7	260	no part loaded or deep draft vessels
8	260	
9	260	
10	260	no part loaded or deep draft vessels
11	260	
12	260	
13	185	seasonal (see section 1.8)
14	185	seasonal (see section 1.8)
15	185	,
16		seasonal (see section 1.8)
Z		barges & small vessels only

English Bay Anchorages are assigned on a first come first serve basis.

NOTE: For vessels greater then 260 meters or in an emergency, the Duty Harbour Master may offset an anchorage, to allow the vessel to anchor. In such cases, safety will be the deciding factor.

1.5 ROBERTS BANK ANCHORAGE(S)

There is one Anchorage available near Roberts Bank

	Max length of	
Anchorage	Vessels (meters)	Remarks
R	320	Pilot must remain onboard due to depth of water and prevailing weather conditions

1.6 OTHER ANCHORAGES

In times of congestion within the Port, vessels may be directed to anchor off Vancouver Island. These anchorages are assigned by the Pacific Pilotage Authority or by local Port Authorities.

1.7 ANCHORAGE PRIORITIES

Anchorages other than for the Inner Harbour are assigned on a first come first serve basis (based on confirmed ETA of vessel at Brotchie pilot station). However, this does not apply to vessels waiting for other ports, or not utilizing the port of Vancouver. These vessels will be assigned anchorages subject to availability.

1.8 ANCHORAGES FOR TANKERS

All tankers, irrespective of cargo are prohibited from anchoring between 1st and 2nd Narrows unless for emergency purposes.

1.9 SEASONAL ANCHORAGES

Vessels in anchorages 13, 14 & 15 are susceptible to dragging in strong southerly winds. The use of these anchorages is restricted from 1st November to 1st April when strong southerly winds are predominant.

1.10 ANCHORAGE WARNINGS

Vancouver Traffic will broadcast on CH12 a wind warning advisory for all vessels at anchor in the Port of Vancouver, under the following circumstances.

- 1. When winds reach or exceed 30 knots from any direction at First Narrows.
- 2. When winds are West to North West 20 knots or greater at First Narrows and a gale warning for North Westerly winds has been issued for Georgia Straight.
- 3. At the discretion of the Harbour Master or Vancouver Marine Communications and Traffic Services Centre.

Ship at Anchor

A continuous navigation watch should be maintained at anchor. In all circumstances, while at anchor. The officer of the watch should:

- (a) determine and plot the ship's position on the appropriate chart as soon as possible, when circumstances permit, check at sufficiently frequent internals whether the ship is remaining securely at anchor by taking bearings of fixed navigational marks or readily identifiable shore objects.
- (b) ensure that an efficient look-out is maintained;
- (c) ensure that inspection rounds of the ship are made periodically;
- (d) observe meteorological and tidal conditions and the state of the sea;
- (e) notify the master and undertake all necessary measures if the ship drags anchor;
- (f) ensure that the state of readiness of the main engines and other machinery including 2nd anchor is in accordance with the master's instructions;
- (g) if visibility deteriorates, notify the master and comply with the applicable regulations for preventing collisions at sea;

- (h) ensure that the ship exhibits the appropriate lights and shapes and that appropriate sound signals are made at all times, as required;
- (i) take measures to protect the environment from pollution by the ship and comply with applicable pollution regulations.

Furthermore, to ensure a safe and seaworthy condition at anchorage, vessels are advised that they should not completely deballast until cargo loading operations have begun.

Cancellation

The anchorage warning will be cancelled when:

- 1. Winds have abated below 30 knots for over one hour (below 20 knots for over one hour if from the West or North West).
- 2. At the discretion of the Vancouver Marine Communications and Traffic Services Centre (MCTS).

1.11 IMPROPERLY ANCHORED VESSELS

If a vessel fails to anchor in its assigned anchorage or if a vessel drags out of position in the anchorage, and:

- 1. The vessel is endangering other vessels at anchor, or;
- 2. The vessel is obstructing the use of other anchorages.

The vessel will be required to be repositioned by a BC Coast Pilot, and to absorb all costs associated with the repositioning.

2.0 OVERBOARD DISCHARGES

2.0 OVERSIDE DISCHARGES

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2.1 APPLICATION

For the purpose of this procedure, the term overside discharges refers to the discharge of any liquids from a vessel other than ballast water. (Ballast water is dealt within a separate procedure.)

2.2 SEALING OF OVERSIDE DISCHARGE VALVES

It is an offence to discharge into the harbour any oil or other liquids containing oil. To help protect vessels from the accidental discharge of oil or oily water, the Harbour Master's Patrol Staff will seal the engine room bilge overside discharge valve(s). This valve(s) is normally located between the oily water separator and the engine room bilge discharge port.

2.3 DISCHARGE REQUESTS

Vessels requiring to discharge hold washings must notify the Harbour Master's Office, the Duty Harbour Master may be contacted at any time after office hours through Vancouver Marine Communications and Traffic Services Centre (MTSC) at 666-6011. It is recommended that at least 12 hours notice be given.

The Harbour Master's patrol staff will inspect the hold cleanliness and hold washings prior to discharge. In any event no hold washings are to be discharged without approval from the Harbour Master's Office.

2.4 HOLD WASHING DISCHARGES

Vessels are encouraged to retain hold washings on board or at least provide some settling of the heavier materials before discharge overside. No matter how innocuous the commodity, the Canadian Department of Fisheries & Oceans have a prohibition for suspended solids in excess of 75 mg/L (parts per million). For most materials, this is only a slight haze. Where possible, dry clean up methods which recover the product should be used.

The following table represents guidelines for hold washing discharges:

Alumina (Aluminum Oxide)

Appearance: Fine white crystalline powder. Properties: Insoluble in water & sinks.

Cleaning & Disposal: Sweep up and shovel to containers. Residues

may be washed out with sea water.

Reside Limit: 75 mg/L

➤ Aluminum Dross (Slag)

Appearance: Dull silvery turnings or small irregular lumps. Properties: Contact with water may cause heating with

possible generation of flammable and toxic gases such as hydrogen, ammonia and acetylene. Insoluble and sinks in water.

Cleaning & Disposal: Shovel to containers and return to stockpile.

Residue may be washed out with sea water.

Residue Limit: 75 mg/L

> Coal

Appearance: Irregular black lumps accompanied by

fragments and powder.

Properties: Insoluble and fine particles will float causing a

matt sheen appearance on the water.

Cleaning & Disposal: Sweep and shovel to containers. Residue may

be washed out with sea water.

Residue Limit: 75 mg/L.

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Zinc/Lead/Copper Concentrate

Appearance: Dark brown/green fine ore.

Properties: Insoluble, sinks rapidly leaving only finest

particles as surface scum.

Cleaning & Disposal: Sweep & shovel to containers. Wash water

should be discharged for treatment.

Residue Limit: 75mg/L.

> Gypsum

Appearance: White odourless powder.

Properties: Slightly soluble in water and sink.

Cleaning/Disposal: Sweep and shovel to containers. Residue may

be washed out with sea water.

Residue Limit: 75mg/L.

Phosphate Rock

Appearance: White irregular lumpy material with fine

particles.

Properties: High cadmium concentration. Sinks and mixes. Cleaning & Disposal: Sweep and shovel to containers. Should not be

disposed of in hold washings.

Potash

Appearance: White granular translucent powder.

Properties: Soluble in water and sinks.

Cleaning & Disposal: Sweep and shovel to containers. Residue may

be washed out with sea water.

Residue Limit: 75 mg/L.

> Urea

Appearance: White crystals, granules or powder.

Properties: Sinks and mixes with water. Slight ammonia

odour.

Cleaning & Disposal: Sweep and shovel to containers. Residue may

be washed out with sea water.

Reside Limit: 75 mg/L.

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> Sulphur

Appearance: Yellow beads, lumps or coarse grained powder. Properties: Fire powder floats on water. Insoluble in water. Cleaning & Disposal: Sweep and shovel to containers. Residue may

be washed out with sea water.

Residue Limit: 75 mg/L.

> Grain

Cleaning & Disposal: Sweep and shovel to containers. Residue

(fines) may be washed out with sea water.

Residue Limit: 75 mg/L.

> Salt

Properties: Non-toxic and soluble. Cleaning & Disposal: Wash out with sea water.

Residue Limit: No limit.

Sugar (dry)

Properties: Non-toxic and soluble

Cleaning & Disposal: Sweep and shovel to containers.

Residue Limit: 75 mg/L

2.5 ACCIDENTAL DISCHARGES

All accidental overside discharges should be reported immediately to the Harbour Master's Office. If the discharges contain oil or other deleterious substances, the vessel must immediately notify Vancouver Marine Communications and Traffic Services Centre (MCTS) and activate its pollution response plan.

Harbour	Operations	Manual
man bour	Operanous	MINIMA

3.0 OIL TRANSFER PROCEDURES

3.0 OIL TRANSFER PROCEDURES

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APPENDIX

Copy of "Oil Transfer Check List" Form

3.1 INTRODUCTION

The oil receiver and the oil supplier should before transferring:

- 1. Agree on the appointment of a competent person to supervise the transfer operation.
- 2. Agree on the handling procedures including the maximum loading or unloading rates.
- 3. Complete and sign the "Oil Transfer Check List".
- 4. Agree on the action to be taken in the event of an emergency during handling operations.

In order to assist oil suppliers and receivers in their joint use of the "Oil Transfer Check List", these procedures have been drawn up. They are based on IMO recommendations on the safe transport, handling and storage of dangerous substances in port areas.

3.2 BUNKERING AND BULK OIL DELIVERIES

A ship's agent shall give the Harbour Master's office at least 12 hours notice of bunkering or the loading of bulk oils either from a barge or tanker truck. Whenever possible bunkerings and the transfer of bulk oils will take place during daylight hours.

The loading of bunkers and bulk oils is only permitted alongside a berth or, if this is not possible, at an Inner Harbour anchorage.

The loading of bunkers and bulk oils is not permitted under any circumstances for vessels berthed at Deltaport and Roberts Bank.

The loading of bunkers and bulk oils is not permitted for vessels loading or discharging chemicals at Lynnterm No. 4.

3.3 APPLICATION

The "Oil Transfer Check List" applies to all oil transfer operations in the Port of Vancouver. Vessels loading oil only as a cargo are excluded.

3.4 MUTUAL SAFETY EXAMINATION

An oil receiver needs to check his preparations prior to transferring oil. Additionally, he has a responsibility to assure himself that the oil supplier has likewise made proper preparations.

Equally the oil supplier needs to check his own preparations and to be assured that the oil receiver has carried out his checks and has made appropriate arrangements.

In carrying out their full responsibilities, both the oil receiver and the oil supplier, by questioning each other and by joint visual inspection should assure themselves that the standards of safety on both sides of the operation are fully acceptable.

3.5 CHANGE OF CONDITIONS

The conditions under which oil transfers take place may change during the process. The changes may be such that the integrity of the operation can no longer be guaranteed. The party noticing or causing the change of condition is under an obligation to take all necessary actions, which may include stopping the operation, to re-establish safe conditions. The change of conditions should be reported to the other party, and where necessary, co-operation with the other party should be sought.

3.6 TRANSFERRING FUEL INTERNALLY

Care should be taken if it is necessary to transfer oil internally between tanks. Except for bunker barges, there should be no internal transfer into a tank, which is greater than 85 percent full, prior to transfer.

Except for bunker barges, the transferring of oil should not be used to adjust a vessel's trim.

3.7 SPILL RESPONSE PLANNING

The Canada Shipping Act requires vessels to have an Oil Pollution Emergency Plan. The plan must identify the person authorized to implement the plan and also confirm the vessel has an arrangement with a Canadian Coast Guard certified response organization.

In the event of a spill during the transfer operations, the Receiver and Supplier must both immediately notify the Canadian Coast Guard and the Harbour Master's office. The Canada Shipping Act requires both the oil supplier and oil receiver to immediately implement their oil pollution emergency plan and responds to the spill.

3.8 NOTIFICATION OF TRANSFER

The "Instructions for Completion" section of the "Oil Transfer Check List" form, state that no oil is to be transferred until this form is completed in its entirety.

Where possible, a representative of the Harbour Master's Office will attend all transfer operations on deep sea vessels, at which time the Harbour Master's copy of the form may be handed in.

However it will be the responsibility of the oil supplier to inform the Harbour Master's office in advance that the transfer operation is to take place, and to forward a copy of the completed form within 48 hours of the completion of the operation if no representative of the Harbour Master is able to attend.

If a representative of the Harbour Master attends a transfer operation whilst it is underway and finds that a copy of the form has not been completed nor its requirements adhered to, he will order the operation to be stopped until all requirements of the form have been carried out.

Failure to comply with these requirements may result in prosecution or the imposition of a penalty.

3.9 GUIDELINES FOR COMPLETING THE OIL

TRANSFER CHECK LIST QUESTIONNAIRE

Q1 Has the Harbour Master's Office been advised of transfer?

Prior to a transfer taking place, notification must be given to the Harbour Master's Office. The Duty Harbour Master may be contacted at any time after office hours through Vancouver Marine Communications and Traffic Services Centre (MCTS) at 666-6011. It is recommended that at least 12 hours notice be given.

Q2 Are vessels securely moored/anchored?

In answering this question, due regard should be given to the need for adequate fendering arrangements.

- a) Vessels should remain adequately secured in their moorings. Ranging of the vessel when alongside piers or quays should be prevented by keeping all mooring lines taut; attention should be given to the movement of the vessel caused by currents, tides, passing vessels and the operation in progress.
- b) The Delivery truck to be stationary and secured as per operating requirements.
- c) Means should be provided to enable quick and safe release of the vessel in case of an emergency.
- d) The method used for the emergency release operation should be agreed, taking into account the possible risks involved.
- Q3 Are emergency towing lines/wire rigged?

Emergency towing lines should be positioned both on the offshore bow and quarter of the receiving vessel.

The eyes of these lines should be maintained at 1 metre above the waterline and regularly check and adjusted if necessary during the operations. They should be properly made fast on the vessel's bollards.

Q4 Is there a spill response plan?

The oil receiver and oil supplier will together:

- a) agree on action to be taken in the event of a spill incident, including immediate reporting of same.
- b) identify a list of sources of immediately available clean up and containment material.
- c) identify the person authorized to activate each parties oil spill response plan.
- Q5 Is there an effective watch at all stations?

The operation should be under constant control both by the receiver and the supplier with visual observation.

Supervision should be aimed at preventing the development of hazardous situations; if, however, such a situation arises, the controlling personnel should have adequate means available to take corrective action.

All personnel connected with the operations should be familiar with the dangers of the substances handled.

Q6 Is there an agreed communication system?

An intrinsically safe communication system should be agreed upon and tested prior to commencing the transfer.

Q7 Have procedures for oil transfer handling been agreed?

The procedures for the intended operation should be pre-planned. They should be discussed and agreed upon by the receiver and the supplier prior to the start of the operations.

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The agreed arrangements should include:

- 1. Type of product to be transferred.
- 2. Quantity of product in metric tonnes or litres.
- 3. Description of tank, i.e. no. 2 wing tank.
- 4. Capacity of loading tank, taking into account whatever fuel may already be in the tank.
- 5. The rate of loading in metric tonnes/litres per hour.
- 6. The loading pressure in pounds per square inch.

Any change in the agreed procedure that could affect the operation should be discussed and agreed upon. After agreement has been reached by both parties, substantial changes should be laid down in writing as soon as possible and in sufficient time before the change in procedure takes place.

Q8 Have emergency shut down procedures been agreed?

An emergency shut down procedure should be agreed and recorded. The agreement should designate in which cases the operations have to be stopped immediately.

Due regard should be given to the possible introduction of dangers associated with the emergency shut down procedure.

Q9 Are transfer hoses in good condition and properly rigged?

Hoses and metal arms should be in good condition and should be properly fitted and rigged so as to prevent strain and stress beyond design limitations. All flange connections should be fully bolted.

Q10 Are scuppers plugged and drip trays positioned?

Where applicable, scuppers should be properly plugged during the operation. Accumulations of water should be drained off periodically.

Manifold and air vents should ideally be provided with fixed drip trays; in their absence portable drip trays may be used.

Q11 Are unused connections blanked?

Unused oil line connections should be closed and blanked. Blank flanges should be fully bolted and other types of fittings, properly secured.

Q12 Are safety/smoking requirements being observed?

Personnel will observe all safety requirements. Attention should be paid to ensure there is safe access particularly between vessels.

Q13 Are sufficient qualified personnel available to deal with an emergency?

The Master is to ensure that sufficient qualified personnel be available at all times.

OIL TRANSFER CHECK LIST	HM 101/96
RECEIVING VESSEL (If appropriate)	
SUPPLYING VESSEL (If Berth/Anchorage)	

INSTRUCTIONS FOR COMPLETION:

The Safety of Operations requires that all questions be answered affirmatively. In the case of a negative answer, the fuelling operation shall not be carried out without the permission of the Harbour Master.

No oil is to be transferred until this form is completed in its entirety. The completed copy must be faxed (665-9099) or mailed by the oil supplier to the Harbour Master's Office, 2306 - 200 Granville Street, Vancouver, B.C. V6C 2P9 within 48 hours of completion of the operation.

	QUESTION	RECEIVER		ER SUPPI		ER SUPPLIER	
		YES	NO	YES	NO		
1.	Has the Harbour Master's Office been advised of transfer?						
2. moo	Are vessels securely red/anchored?						
3.	Are emergency towing lines/wire rigged?						
4.	Is there a spill response plan?						
	Person authorized to initiate respo (Receiver) NAME: (Supplier) NAME:	nse plan.	TEL: TEL:				
5.	Is there an effective watch at all stations?						
6.	Is there an agreed communication system?						
7.	Have procedures for oil transfer handling been agreed?						
8.	Have emergency shutdown procedures been agreed?						
9.	Are transfer hoses in good condition and properly rigged?						
10.	Are scuppers plugged and drip trays positioned?						
11.	Are unused connections blanked?						
12.	Are safety/smoking requirements being observed?						
Are	sufficient qualified personnel available to deal with an emergency?						

DATE/TIME	PRODUCT	QTY TO BE LOADED MT/LTR/BBL	DESCRIPTION OF LOADING TANK	CAPACITY OF LOADING TANK	RATE MT/LTR	PRESSURE (PSI)

DECLARATION:

	jointly, the items on this check list, and have have made are correct to the best of our
NAME:	NAME:
POSITION:	POSITION:
SIGNATURE:	SIGNATURE:
Original - Harbour Master's Office	Vellow - Supplier Pink - Receiver
THIS HALL BUT THE WINGER CONTINUE	

4.0 BALLAST WATER

4.0 BALLAST WATER

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4.1 APPLICATION

For the purpose of this procedure, ballast water refers to any water loaded into a vessel's hold, cargo tank, peak tank, wing tank, deep tank, ballast tank or double bottom tank, other than for the purposes of hold washing. For hold washing, see Overboard Discharge Procedures.

Permission to take in ballast water is not required.

4.2 BALLAST WATER EXCHANGE

1. TOPIC

Ballast Water Exchange Program.

2. STATEMENT

All vessels destined to arrive at the Port of Vancouver in ballast condition, will be required on and from March 1, 1997 to carry out a Mid Ocean Ballast Water Exchange prior to arriving in Canadian Waters.

The purpose of this exchange is to limit the possibility of transferring non indigenous species into Canadian waters.

Any vessel conforming to IMO Resolution A774 (19), (Guidelines for Preventing the Introduction of Unwanted Aquatic Organisms and Pathogens from Ships' Ballast Water and Sediment Discharges), will be considered in compliance with these procedures.

3. PROCEDURES

- 3.1 Harbour Master's Representatives when boarding vessels to conduct ballast checks, will require to see one of the following:
 - 1) log book entry (In English)
 - 2) abstract of the log book entry
 - 3) company or other administration form

giving details of the mid ocean exchange of ballast water. These details must include the following information:

- position of exchange, latitude and longitude
- place where ballast water originally taken
- ballast tanks which have had water exchanged
- details if ballast not exchanged *(see note)
- * This information may be faxed to the Harbour Master's Office at (604) 665-9099, however a Harbour Master Representative must be in attendance prior to the discharge.

- 3.2 In the event that the vessel is unable to supply the above information in the prescribed manner, then no ballast water will be allowed to be discharged to the harbour until the following procedures have been forwarded: -
 - samples of ballast water will be drawn and analyzed by a Harbour Master Representative
 - ballast water found not meeting VPC test standards, will require the vessel depart the port and exchange ballast water in the outgoing current of the North side of the Strait of Juan de Fuca, West of Race Rocks.

All charges for the movement and delay to the vessel will be for the vessel's account

- 3.3 Vessels arriving in Vancouver from Ports on the West Coast of the United Stated of America (North of Cape Mendocino), British Columbia and Alaska, wishing to discharge ballast water, do not have to adhere to policy if the ballast water to be discharged originated from these waters. The Harbour Master's Representative conducting the ballast check will require to see a log book entry showing where the ballast water originated.
- 3.4 This policy will not be applied to vessels wishing to discharge less than 1000 metric tonnes of ballast water, however a Port Representative must be in attendance prior to the discharge.
- 3.5 Compliance with the program will be without the procedures outlined in 3.2 until January 1st, 1998 to allow for adequate dissemination and observation of the program.

Note: It will be a defense against not changing the ballast water at sea for the following reasons:

- 1. stress of weather
- 2. stability or hull stress concerns safety is paramount and the Master will only be required to carry out the exchange if it is safe to proceed.

4.3 BALLAST DISCHARGE REQUESTS

Vessels requiring to discharge ballast water must notify the Harbour Master's office at least 12 hours in advance. No ballast is to be discharged until a representative of the Harbour Master's office gives permission.

Vessels that are subject to long delays at anchor or that are anchored during severe weather conditions shall retain full ballast on board unless otherwise authorized by the Harbour Master.

Authorization to de-ballast will not be unnecessarily withheld.

4.4 BALLAST WATER INSPECTION

In most cases prior to approving discharge, a representative of the Harbour Master's office will inspect the ballast water. This inspection will consist of the following:

- The Harbour Master's office representative will ask the vessel to pump out some ballast water from one of its tanks he selects. The vessel must pump, not "dropout" the ballast water from the tank to ensure the ballast line and pump are also utilized. The Harbour Master's office representative will usually inspect the water surface around the ballast water discharge port for evidence of oil or other contaminants being discharged with the ballast water.
- The Harbour Master's office representative may also carry out a visual inspection of the tank/hold content. This will require the tank to be properly vented with all manholes and tank lids removed. The inspection will not involve anyone entering the tank.
- On satisfactory completion of the inspection an inspection record will be completed and approval given to discharge ballast water.

4.5 REFUSAL OF BALLAST WATER DISCHARGE

In the event that the Harbour Master's office representative suspects the ballast water may be contaminated, the vessel will not be allowed to discharge any ballast water until a sample is analyzed. If the ballast water is subsequently found to be contaminated, then the vessel must comply with the Harbour Master's office Overboard Discharge Procedures, Oil Transfer Guidelines and VPA Harbour Master Department Standing Order on Ballast Water Exchange.

5.0 BERTHING

5.0 BERTHING

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5.1 GENERAL

The Vancouver Port Authority manages the conduct of vessels berthing in the Port of Vancouver.

5.2 OVERHANG

Any vessel requiring to overhang a berth should contact the Harbour Master's Office prior to berthing or shifting. The Harbour Master's office will require that the vessel:

- Will not obstruct the passage of any other vessel.
- Properly illuminates the overhang from sunset to sunrise
- Does not, with regard to the prevailing weather conditions, tide or currentpose a potential danger to the port.
- Does not impact on adjacent berths or facilities.

When assessing a request for a vessel to overhang, the interests of the terminal operator must be considered. However, for overhangs in excess of 20% of the vessels length additional requirements may be imposed on the vessel, including the use of tugs, and additional mooring lines.

5.3 SHIFTING ALONG THE BERTH

Any vessel requiring to shift along a berth must inform the Harbour Master's Office. Except for Vancouver Wharves and Lynnterm, vessels may shift without a Pilot providing:

- Approval is received from the Harbour Master's Office.
- No tugs are to be employed
- The berth is free from encumbrances (i.e. cranes, gangways, etc. are moved clear)
- The Master is on the bridge in overall charge.
- Main engines are on standby and ready for immediate use.
- Linesmen are employed.
- There are two head/stern lines and one spring each end under tension at all times.
- Vancouver Marine Communications and Traffic Services Centre (MCTS) is notified at the commencement of any shift and also at its completion using CH. 12 VHF.
- CH 12 VHF is monitored throughout the shift.

For vessels berthed at Vancouver Wharves or Lynnterm, the maximum distance a vessel may shift without a pilot is 30 meters.

In certain circumstances due to weather conditions, tide, current, distance of shift, characteristics of vessel or where main engines are to be utilized, the Harbour Master may require tugs and/or a pilot to be used. However, nothing in these procedures relieves the master of the vessel from his obligations for safety, following additional precautions as would be required by the normal practice of seamen or from employing a pilot and tug(s) if he so requires. These procedures are to be considered the minimum requirements for shifting.

5.4 EMERGENCY TOWING LINES

In the event of a fire or other emergency, it may be necessary to take a vessel off the berth.

Vessels berthed in the Port shall rig a tow line at both bow and stern, securely fastened on deck by one end and hanging over the offshore side of the vessel with an eye in the other end positioned not more than 1 metre above the waterline.

Tow lines for tankers are mandatory and they must be made of steel.

5.5 DE-MOBILIZING MAIN ENGINES

No vessel shall de-mobilize its main engines whilst alongside without the approval of the Harbour Master's Office. The Harbour Master's Office will consider:

- The prevailing weather conditions, tide or current.
- The type of berth and cargo operations.
- The length of time the engines are expected to be de-mobilized.
- The characteristics of the vessel.

If approval is given, then the vessel will be required to:

- Provide a continuous vigilant deck watch.
- Advise Vancouver Marine Communications and Traffic Services Centre (MCTS) at the commencement and completion of the de-mobilization.
- Provide continuous monitoring of CH. 12 VHF.
- Ensure emergency towing lines are properly rigged. (See Section 5.4)
- Provide a minimum of 4 head/stern lines and two springs each end, under even tension.

Note: In some circumstances a tug may be required to stand by the vessel. A tug must stand by a vessel that requires to de-mobilize its engines whilst at anchor.

Nothing in these procedures relieves the Master of the vessel from his obligations for safety or from following additional precautions as would be required by the normal practice of seamen. These procedures are to be considered the minimum requirements.

5.6 BERTHING OF NON-CRUISE VESSEL AT CANADA PLACE

The following conditions apply to this berth arrangement:

- 1. The opening and closing of hatch covers should be kept to a minimum and can only take place between the hours of 0800 1800.
- 2. Any activity that creates excessive noise for building tenants may be prohibited, particularly after 1800 hours.
- 3. Every effort is to be made to minimize funnel emissions in order to avoid intakes into the building air conditioning system.
- 4. No maintenance or repair activities are to take place without specific approval by the Harbour Master Office.

5.7 BERTHING LARGE VESSELS AT THE DRY DOCK PIER

The Harbour Master Office will approve the berthing if usual mooring practices are met, and in addition:

- 1. Port side to, bow south
 - At least three lines from the port forward should lead to the dry dock to be within 100 of right angles to the centre line of the ship.
 - Bow not to project more than 18.3 metres (60 ft.) south of the extreme seaward end of the dock.
 - Starboard anchor down.
- 2. Starboard side to, bow north
 - Stern not to project more than 12.2 metres (40 ft.) south of the extreme seaward end of the dry dock.
 - At least three aft breast lines to be led from the shoulder to the dry dock, within 100 of right angles to the centre line of the ship.

If these conditions are met there will not be a requirement for a stand-by tug.

Harbour Operations Manua		
STRICTIONS		

6.0 SECOND NARROWS MRA STANDING ORDERS

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6.1 PREAMBLE

The Second Narrows MRA Standing Orders are designed to provide for the orderly and safe flow of traffic in respect of vessels transitting the Second Narrows and are by no means exhaustive. The assistance and co-operation of the many individuals involved in the preparation of these Orders is greatly appreciated.

The CN Bridge Operators shall endeavour to make the CN Bridge available, with the lift span elevated, 30 minutes prior to a deep sea vessel's ETA. While these Orders provide for the efficient flow of traffic during optimum conditions, the Master or Person-in-Charge of a vessel must be prepared for such unforeseen circumstances as CN Bridge malfunctions and train outages to take action as required.

Communication is provided to vessels, as specified, through the facilities of the Canadian Coast Guard MCTS. Procedures relative to this system are outlined in the Canadian Hydrographic Sailing Directions B.C. Coast Southern Portion and in Notice No. 25 of the Annual Edition of "Notices to Mariners". When a "clearance" is given to a vessel to transit the Second Narrows Movement Restriction Area, MCTS shall provide information of any other known traffic intending to transit within 20 minutes of the transit time for which the clearance is given. MCTS shall also, at this time, advise of any specific orders regarding the transit which may be issued by the Harbour Master's Office. Where certain vessels are required to wait pending the transit of another vessel, they shall be so advised prior to leaving berth, weighing anchor, or entering the MRA.

6.2 VANCOUVER PORT AUTHORITY SECOND NARROWS MRA STANDING ORDERS

EFFECTIVE : DECEMBER 1981 LAST REVISION: APRIL 1996

6.3 INTERPRETATION

1. In these Orders:

"By-law" means the Vancouver Port Authority Operating By-law A-1;

"clearance" means an authorization from MCTS for a vessel to enter, move within or depart from the MRA subject to any conditions specified in these Orders;

"Clear Narrows" means the transit of a vessel through the MRA, unimpeded and not met, overtaken, or crossed ahead by any other vessel;

"dangerous goods" means dangerous goods as defined in the By-law and includes explosives;

"deep sea vessel" means:

- (a) any vessel requiring a pilot;
- (b) barges with a displacement of 6,500 tonnes and greater, whether or not self-propelled;

"holding areas" means designated areas within the MRA, on the north and south shores each side of the Second Narrows Bridges, in which tugs and tows can hold themselves in readiness until conditions are such that a transit of the Second Narrows Bridges can be made. These designated areas are:

- (a) North East CanadianOxy;
- (b) North West Lynnterm;
- (c) South East Stanovan;
- (d) South West Cascadia;

"MRA" means the Second Narrows Movement Restriction Area and comprises that area enclosed within lines drawn 0000 from the fixed light on the northeastern end of Terminal Dock to the North Vancouver Shoreline at

Neptune Terminals and a line drawn 0000 from Berry Point Light (approximately 1.5 miles east of the CN Bridge on the South Shore of Vancouver Harbour) to the North Shore on the opposite side of the channel;

"Second Narrows Bridges" means the Canadian National Railways ("CN") Bridge and the Second Narrows Vehicular Bridge;

"small craft" means any vessel that is not a deep sea vessel;

"tonne" means a metric tonne of 1000 kilograms (2205 lbs.);

"transit speed" means the speed of the vessel through the water within the MRA;

"vessel" means a vessel as defined in the By-law;

"MCTS" means the Vancouver Marine Communications and Traffic Services Centre at the Port of Vancouver, B.C.

6.4 APPLICATIONS

- 2. These Orders are issued pursuant to the By-law, and:
 - (a) apply to vessels within or intending to enter the MRA;
 - (b) apply to all persons responsible for the planning, operations, conduct and safe navigation of such vessels;
 - (c) do not relieve any Master or Person-in-Charge of a vessel from compliance with the Canada Shipping Act Collision Regulations or other specific regulations, requirements or standards in respect of vessels operating in Canadian ports;
 - (d) do not lessen in any way, the ultimate responsibility of the Master or Person-in-Charge of a vessel for the safe navigation and prudent manoeuvring of such vessel;
 - (e) are implemented by MCTS on behalf of the Vancouver Port Authority

6.5 RESTRICTED PERIODS AND CONDITIONS

Periods

- 3. (1) Deep sea vessels intending to transit under the Second Narrows Bridges shall do so during periods of operation established either side of high and low water slack with deep sea vessels transitting under the Second Narrows Bridges at slack water or stemming the current.
 - (2) Such periods are set forth in Appendix A which shall be made available to Port users and are based on a limiting rate of tidal current of 2 knots and a tidal height of 2.13 metres (7 feet) or more.
 - (3) Transits at times other than those specified in subsection (1) shall be made only where the Master and pilot consider it safe and where permission of the Harbour Master is obtained prior to the transit.
- 4. During the periods of operation referred to in section 3, transit priority will be given, in the following order, to:
 - (a) deep sea vessels carrying dangerous goods;
 - (b) all other deep sea vessels;
 - (c) small craft carrying dangerous goods; and
 - (d) all other small craft, vessels and tows.
- 5. There are no restricted periods of operation for small craft other than the priority restrictions specified in section 4.
- 6. Transit periods, transit priorities, and transits in general may be amended as requisite in the event of an emergency.

Wind

7. (1) No vessel shall attempt to transit the MRA where wind conditions are such that difficulty in maneuvering may be experienced as a result of light vessel draught and/or high freeboard factors.

- (2) A vessel to which subsection (1) applies shall:
 - (a) remain at berth or anchorage, or
 - (b) proceed to and remain at a designated berth or anchorage.

until such time as wind conditions are satisfactory for the transit.

Visibility

- 8. (1) No deep sea vessel, or small craft carrying dangerous goods, intending to pass under the Second Narrows Bridges, shall transit through the MRA unless there is a clear visibility range at the CN Bridge of at least 1.5 miles to the east and 1 mile to the west (defined limits of the MRA).
 - (2) No deep sea vessel or small craft carrying dangerous goods that is:
 - (a) proceeding to a berth within the MRA; or
 - (b) departing from a berth within the MRA
 - shall pass under the Second Narrows Bridges unless such berth and the boundary of the MRA from or to which the vessel shall proceed is visible from the CN Bridge.
 - (3) To the extent that maneuvers do not interfere with vessels transitting under the Second Narrows Bridges, the visibility requirements specified in subsection (1) and (2) do not apply to deep sea vessels and small craft not intending to transit under such Bridges but berthing or unberthing within the MRA.

6.6 CONTROL AND PROCEDURES

9. MCTS procedures, including application, clearance/operating procedures, as outlined in Notice No. 25 of the Annual Edition of "Notices to Mariners", will apply when transitting or moving within the Second Narrows MRA.

6.7 TRANSIT SPEED

- 10. Except for reasons of emergency, or to avoid damage to the Second Narrows Bridges, no deep sea vessel shall proceed within the MRA at a transit speed in excess of 6 knots.
- 11. (1) Deep sea vessels intending to transit under the Second Narrows Bridges which are unable to maintain a transit speed of 6 knots of less, or are unable to safely navigate at 6 knots or less, shall:
 - (a) remain at berth or anchorage, or
 - (b) proceed to and remain at a designated berth or anchorage,

until the arrangements specified in subsection (2) are made to assist such vessel in its movement.

- (2) The arrangements referred to in subsection (1) include;
 - (a) a minimum of 3 tugs, each of 1500 B.H.P. or greater,
 - (b) a restricted transit time at or near slack water, and
 - (c) prior approval of the Harbour Master.
- (3) The Harbour Master may reduce the number of tug as required by paragraph (2)(a) when a vessel is equipped with internal manoeuvring systems described in paragraphs 17(4)(a) and (b).
- 12. All small craft within the MRA shall proceed at a safe speed.

6.8 CLEAR NARROWS

- 13. (1) A Clear Narrows is required for;
 - (a) LPG/LNG tankers;
 - (b) deep sea tankers involved in the movement of bulk liquids; and
 - (c) other vessels which specifically require the approval of the Harbour Master.
 - (2) All other vessels shall observe the order of a Clear Narrows and shall not obstruct the passage of a vessel for which a Clear Narrows has been issued.
- 14. Any vessel intending to follow a vessel for which a Clear Narrows has been issued shall observe the restriction applicable to same direction traffic provided in section 15.

6.9 METHOD OF OPERATION

- 15. (1) No deep sea vessel intending to transit the MRA shall:
 - (a) commence its transit until a deep sea vessel transitting in the opposite direction has completed its transit; or
 - (b) enter the MRA until any preceding deep sea vessels transitting int he same direction have cleared the Second Narrows Bridges by a minimum distance of 2 cables (0.2 nautical mile).
 - (2) Deep sea vessels proceeding to or departing from berths within the MRA shall give way to and not interfere with the movement of deep sea vessels transitting the MRTA.
- All other vessels shall plan their movements, taking into consideration the orders respecting transits of deep sea vessels, which vessels shall be given as unobstructed a passage as is practicable and consistent with good seamanship.

6.10 ATTENDANT TUGS

- 17. (1) Except as specifically exempted by the Harbour Master, deep sea vessels, other than self-propelled barges of 6,500 tonnes displacement or greater, intending the transit under the Second Narrows Bridges shall employ a minimum of 2 tugs, which tugs shall remain in close attendance from a least 5 cables (0.5 nautical mile) before the Second Narrows Bridges until such vessels have cleared the Second Narrows Bridges by a minimum of 2 cables (0.2 nautical mile).
 - (2) The total bollard pull of the tugs referred to in subsection (1) shall be equivalent to that set out in Appendix B which pull is determined on the basis of the deadweight tonnage of the vessel being assisted.
 - (3) Where the deadweight tonnage of a deep sea vessel exceeds that provided for in Appendix B, the Harbour Master may require tugs in addition to the minimum number and, in any event, approval of the Harbour Master is required prior to the proposed transit.
 - When a deep sea vessel intending to transit under the Second Narrows Bridges is internally equipped with manoeuvring systems which:
 - (a) operate independently of the main propulsion system; and
 - (b) in the opinion of the Harbour Master, provide such vessel with extra manoeuvrability which would be equivalent to all, or part of, the tug requirements of this section, for that vessel,

the Harbour Master may exempt such vessel from the requirements for tugs or reduce the number of tugs required by this section.

- (5) Every vessel to which subsection (4) applies shall advise the Harbour Master, at least 2 weeks in advance of the proposed transit, and provide all necessary details and pertinent literature to enable the Harbour Master to determine whether or not and to what extent such vessel might be exempted.
- (6) Vessels requiring attendant tugs shall indicate to the MCTS that such tugs will be in place prior to proceeding into or moving within the MRA.

6.11 TOWING - TUGS AND TOWS

- 18. In addition to any tug(s) involved in a towing operation, an additional tugs of adequate power is required for the transit of dangerous goods as follows:
 - (a) a towed tank vessel carrying:
 - (i) fuel oil,
 - (ii) gasoline,
 - (iii) crude oil, or
 - (iv) other flammable liquids

having a flashpoint below 61° C where the capacity of cargo carried exceeds 3500 tonnes; and

- (b) a towed vessel:
 - (i) designed to carry compressed liquified gases or liquified chemicals where the capacity of cargo exceeds 100 tonnes, and
 - (ii) carrying combination cargoes on deck where a cargo type exceeds 50 tonnes capacity and is incompatible with any or all of the other cargo carried by the vessel.
- 19. Tugs and tows, other than those described in section 18 above shall, wherever possible, use the first fixed span south of the CN Bridge main lift span.
- 20. Tugs and tows shall give way to and not interfere with the movement of deep sea vessels or small craft carrying or towing dangerous cargo which are transitting the MRA.

6.12 CONTROL AND PROCEDURES

9. MCTS procedures, including application, clearance/operating procedures, as outlined in Notice No. 25 of the Annual Edition of "Notices to Mariners", will apply when transmitting or moving within the Second Narrows MRA.

6.13 TRANSIT SPEED

- 10. Except for reasons of emergency, or to avoid damage to the Second Narrows Bridges, no deep sea vessel shall proceed within the MRA at a transit speed in excess of 6 knots.
- 11. (1) Deep sea vessels intending to transit under the Second Narrows Bridges which are unable to maintain a transit speed of 6 knots of less, or are unable to safely navigate at 6 knots or less, shall:
 - (a) remain at berth or anchorage, or
 - (b) proceed to and remain at a designated berth or anchorage,

until the arrangements specified in subsection (2) are made to assist such vessel in its movement.

- (2) The arrangements referred to in subsection (1) include;
 - (a) a minimum of 3 tugs, each of 1500 B.H.P. or greater,
 - (b) a restricted transit time at or near slack water, and
 - (c) prior approval of the Harbour Master.
- (3) The Harbour Master may reduce the number of tug as required by paragraph (2)(a) when a vessel is equipped with internal manoeuvring systems described in paragraphs 17(4)(a) and (b).
- 12. All small craft within the MRA shall proceed at a safe speed.

6.14 LOG BOOMS AND LOG RAFTS

- 21. (1) No log boom or log raft of over:
 - (a) 20 sections overall length, and
 - (b) 2 sections overall width, or
 - (c) 40 sections total content

is permitted within the MRA.

- (2) Subject to subsection (1), a distance of least 600 metres must be maintained between separate tows of 10 sections or more for log rafts transitting the MRA.
- 22. (1) The Master or Person-in-Charge of a log raft or log boom shall engage one or more tugs of adequate power, in addition to any tugs required in the towing operation, under any of the following conditions:
 - (a) when transitting the MRA where such raft or boom contains 10 sections or more;
 - (b) when transitting the MRA when such raft or boom is unable to remain close inshore of the main channel;
 - (c) to maintain such raft or boom in one of the following designated holding areas:
 - (i) North East CanadianOxy;
 - (ii) North West Lynnterm
 - (iii) South East Stanovan;
 - (iv) South West Alberta Pool.

6.15 RESTRICTIONS - GENERAL

- 23. Every vessel transitting the MRA shall be under adequate mechanical power whether proceeding independently, in tow or in any other configuration.
- 24. No vessel, (except a vessel which is being towed or pushed), having a defect in the hull, main propulsion machinery, steering system, radar, compass, or essential radio communications equipment, detrimental to safe navigation, shall transit the MRA and such vessel shall:
 - (a) remain at a berth or anchorage, or
 - (b) if underway, request and receive permission to proceed to and remain at an emergency anchorage,

until such defect has been corrected.

- 25. (1) No vessel shall move within the MRA unless under mechanical power.
 - (2) No personal watercraft shall move within the MRA.
- 26. (1) No vessel, including any tug and tow, where the overall length of the vessel or combined tug and tow exceeds 60 metres, shall overtake another vessel in the MRA unless:
 - (a) the vessel or tug and tow to be overtaken cannot maintain a speed of 6 knots:
 - (b) communication and signals have been satisfactorily exchanged between the vessels concerned; and
 - (c) no vessel or tug and tow of 60 metres or more is approaching from the opposite direction.
 - (2) Notwithstanding subsection (1), no vessel shall overtake, attempt to overtake or otherwise obstruct a vessel that has approached the CN Bridge and has signalled for the lift span to be raised.

- 27. Every vessel, when towing another vessel through the MRA, shall:
 - (a) limit the length of her towline measured from the stern of the towing vessel to be nearest portion of the vessel being towed, to not more than 60 metres; and
 - (b) not lengthen such towline until both vessels are completely clear of the bridge piers and any projections therefrom.
- 28. (1) The limiting height factor for a complete transit of the Second Narrows Bridges is 44 metres (145 feet) which is the vertical clearance of the central fixed span of the Second Narrows Vehicular Bridge above Higher High Water. Vessels with an air draft in excess of 42 metres (136 ft.) must have the air draft verified by a competent surveyor prior to transit.
 - (2) The vertical span clearances of the CN Bridge above Higher High Water are:
 - (a) main lift span, fully raised (open position) 46 metres (151 feet);
 - (b) main lift span at lowest level (closed position) 10.8 metres (35 feet); and
 - (c) first fixed span immediately south of the south tower, 10.8 metres (35 feet).

6.16 TANKERS

29. (1) In addition to the restricted periods and conditions contained in Part III of these Standing Orders, for all tankers of 40,000 M/T summer D.W.T. or greater, transits of Second Narrows MRA to take place during daylight with a minimum tide height of 10 feet. The following draft restrictions will apply:

Tidal Height	Maximum Draft	
10 ft. (3.05m)	39 ft. (11.89m)	
11 ft. (3.35m)	39 ft. 6 in. (12.04m)	
12 ft. (3.66m)	40 ft. (12.19m)	
13 ft. (3.96m)	40 ft. 6 in. (12.34m)	
14 ft. (4.27m)	41 ft. (12.50m)	

- (2) For loaded crude oil tankers of 40,000 M/T summer D.W.T. or greater, tug escort is required for transit of the MRA as follows: -
 - (a) 40,000 to 50,000 M/T deadweight requires 2 x 2400 h.p. Z drive tugs, made fast.
 - (b) 50,001 to 60,000 M/T deadweight requires 2 x 2400 h.p. Z drive tugs made fast plus an additional 1 x 1800 h.p. tug,
 - (c) Over 60,000 M/T deadweight requires 2 x 2400 h.p. Z drive tugs made fast, plus 2 x 1800 h.p. tugs.
- (3) Tug escorts are to continue through harbour using 2 x 2400 h.p. tugs to 1/4 mile beyond First Narrows. If tanker anchors in English Bay to wait for tide at East Point then 1 2400 h.p. tug to remain in attendance, until the vessel has anchored.
- 30. All tanker transits of Second Narrows MRA are restricted to daylight only when length overall of the tanker exceeds 180 metres.

6.17 BRIDGE COMMUNICATIONS AND SIGNALS

- 31. Deep sea vessels intending to transit under the Second Narrows Bridges shall establish communication on VHF Channel 12 with the CN Bridge Operator which communication shall include:
 - (a) a statement of intentions:
 - (i) prior to departing from a berth or anchorage, or
 - (ii) upon entering the Port limits;
 - (b) an ETA at the CN Bridge; and
 - (c) confirmation of such ETA on reaching the MRA.
- The CN Bridge Operator, on receipt of a deep sea vessel's ETA, shall endeavour to make the CN Bridge available with the lift span elevated 30 minutes prior to the ETA.
- 33. Small craft which can, in respect of the CN Bridge, pass safely under:
 - (a) the main lift span; or
 - (b) the first fixed span immediately south of the south tower

without risking injury to either the vessel or the CN Bridge, shall do so without signaling for the lift span to be raised.

- 34. Deep sea vessels and small craft requiring the CN Bridge lift span to be raised shall:
 - (a) immediately prior to approaching the Second Narrows Bridges, establish communication on VHF Channel 12 with the CN Bridge Operator indicating their intention to signal for the lift span to be raised;

- (b) sound 3 prolonged blasts, this signal to be repeated until acknowledgement has been received from the CN Bridge Operator; and
- (c) remain at a distance of at least 2.5 cables (0.25 nautical mile) from the CN Bridge until such lift span is in a fully raised position.
- 35. (1) The CN Bridge Operator shall, when the vessel's signal has been received:
 - (a) verbally confirm his understanding on VHF Channel 12;
 - (b) display 1 flashing red light on that side of the lift span facing the approaching vessel which indicates that the lift span is in the process of being raised to the fully raised position, or to the requested height; and
 - (c) display 1 flashing green light on that side of the lift span facing the approaching vessel which indicates that the lift span has been raised to the fully raised position, or to the requested height.
 - (2) No vessel shall approach the CN Bridge when the following signals are displayed:
 - (a) 2 flashing red lights on that side of the lift span facing the approaching vessel which indicates that the vessel is to stop at once or, if necessary, go astern; or
 - (b) a vertical row of 4 fixed white lights on the centre of the main lift span which indicates that another vessel is approaching from the opposite direction.

6.18 DESIGN SHIP TONNAGE/TUG H.P. COMPATIBILITY

DESIGN SHIP TONNAGE (DWT)	NO. OF TUGS	ВНР	BOLLARD PULL PER TUG	TOTAL
6,000	2	400	7.5 T	15.0 T
10,000	2	550	8.0 T	16.0 T
20,000	2	700	10.5 T	21.0 T
30,000	2	900	15.0 T	30.0 T
40,000	2	1,200	18.5 T	37.0 T
50,000	2	1,650	22.0 T	44.0 T

The above tug requirements are based on calculation and include a small safety factor.

APPENDIX 'C'

Non Self Propelled Barge Tonnage/Tug H.P. Compatibility

Deadweight of Barge	Number of Assist Tugs	ВНР
6,001 –14,999	1	1800
15,000 or greater	2	1800

Note: For the purpose of this table, deadweight is equivalent to tons of capacity.

6.19 2ND NARROWS VESSEL SIZE LIMITATIONS

The maximum size of vessel that is permitted to transit the Second Narrows shall be determined by adding the overall length of the ship to the maximum breadth (L+B) in metres. The figure shall not exceed 290.0.

In addition, for vessels in excess of 175 metres length overall, the minimum beam/length ratio will be 5.50. This ratio shall be arrived at by dividing the overall length by the maximum breadth. These dimensions shall be taken from Lloyd's Register or from the vessel's Certificate of Registry.

Vessels loading to the maximum draught of 12.5 metres (41 ft) shall be trimmed at least 15cm (6 in) by the stern before leaving the berth.

There will be no exceptions to the foregoing.

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7.0 FIRST NARROWS	RESTRICTIONS

7.0 FIRST NARROWS RESTRICTIONS

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7.1 **DEFINITION**

First Narrows is defined as those waters bounded to the east by a line drawn from Brockton point to Burnaby shoal, then 000 degrees True north; bounded to the west by a line drawn from Navvy Jack Point to Ferguson Point.

7.2 PASSING AND OVERTAKING

Deep sea and large coastal vessels are not permitted to meet or overtake one another between Calamity Shoal Buoy and Capilano Light Beacon (First Narrows Light).

Deep sea and large coastal vessels are not permitted to overtake other vessels transporting dangerous goods between Brockton Point and Capilano Light Beacon.

7.3 TOWING, TUGS AND TOWS

- 1. The maximum allowable dimensions of log rafts are as follows:
 - forty sections total content
 - twenty sections overall length
 - two sections overall width.
- 2. Log rafts over 10 sections in length require an assist tug. Unless cleared by the MCTS Centre, eastbound tugs with tows bound for Seaspan and the Navy Buoy area shall cross the channel east of Burnaby Shoal.
- 3. The maximum length of tow line to be used between Capilano light and the Second Narrow MRA is 55M (180 ft.)

7.4 MANOEUVRING WITHIN FIRST NARROWS

The following applies to vessels maneuvering in First Narrows:

- 1. All vessels are to keep to starboard of mid channel unless otherwise authorized by the MCTS Centre.
- 2. Vessels entering First Narrows are to be in receipt of a Traffic Advisory issued by the MCTS Centre not later than Burnaby shoal westbound or Dundarave eastbound
- 3. Vessels over 92 Meters (300 feet) in length are not permitted to swing in order to calibrate radio direction finders or to adjust compasses east of first narrows. These manoeuvres may be carried out in English Bay provided that traffic conditions allow.
- 4. Vessels intending to arrive at a berth, or depart from a berth located within the limits of First Narrows shall comply as follows:
 - a) prior to entering the limits of First narrows or commencing to single up the mooring lines notify MCTS of the intended manoeuvre the vessel will make, and the expected time of carrying out such manoeuvre.
 - b) Before the vessel is committed to the intended manoeuvre a traffic clearance and advisory of current and anticipated traffic conditions for that location must have been received and acknowledged.

7.5 RESTRICTIONS – FISHING, SAILING, PERSONAL WATER CRAFT, AND DEEP DRAFT VESSELS.

Fishing is prohibited between Capilano Light Beacon and Brockton Point.

Sailing or proceeding without mechanical power (rowing and paddling) is prohibited in First Narrows. One sail sheeted home is allowed for stability purposes when under power in the Narrows – otherwise sails are to be lowered.

The use of personal water craft in First Narrows is prohibited.

All vessels with a draft greater than 15 metres require a Clear Narrows.

7.6 CLEAR NARROWS

The term "Clear Narrows" is defined as the transit of a vessel through either First or Second Narrows, unimpeded and not met, overtaken or crossed ahead of by any other vessel.

The MCTS Centre will implement a Clear Narrows for any vessel specified by the Harbour Master or for any vessel requesting a clear passage through either First or Second Narrows.

The MCTS Centre will announce a Clear Narrows broadcast on VHF Channel 16 followed by the actual broadcast on VHF Channel 12.

Light tugs and other highly maneuverable small vessels may be granted a compliance exemption from the MCTS Centre.

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8.0 SMALL CRAFT RESTRICTIONS

8.0 SMALL CRAFT RESTRICTIONS AND GUIDELINES

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8.1 REPORTING

Marine accidents, navigational hazards, deadheads, oil or similar pollution incidents should be reported at the first opportunity to Vancouver Marine Communications and Traffic Services Centre (MCTS).

8.2 HARBOUR MASTER

All marine activities within the Port of Vancouver are under the jurisdiction of the Harbour Master. Permission must be obtained at least 48 hours in advance of holding any organized aquatic event such as a regatta, sail/power boat races, trials, etc.

8.3 NARROWS

Tide and wind conditions may cause turbulent seas in both Narrows. Caution should be exercised. Only adequately powered craft may pass through either Narrows. No craft under sail or oars may transit either Narrows. One sail sheeted home is allowed for stability when under power in First/Second Narrows. Otherwise sails should be lowered in the non-sailing areas indicated on the chart.

8.4 SMALL CRAFT

Including those under oars, should keep well clear of all commercial vessels underway. In addition, a vessel at anchor or berthed at a terminal may be expected to move without warning and a safe distance should be maintained. Particular attention must be paid to navigation in the high activity areas, i.e. Approaches to Coal Harbour, First Narrows, Second Narrows and Aircraft Operations Zones.

8.5 PERSONAL WATERCRAFT

8.5.1 Definition

"Personal Watercraft" means a vessel of less than 5 metres in length which uses a motor powering a waterjet pump, as its primary sources of power and which is designed to be operated by a person sitting, standing or kneeling on or being towed behind the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

Procedures

A personal watercraft is a boat and you are legally bound by the Rules, Regulations, Laws and Traditions of Safe Boating.

No person shall operate a personal watercraft in any area of the Harbour of Vancouver at night. Sunrise and Sunset are defined as the times published daily in the newspapers The Province and The Vancouver Sun.

Any person operating a personal watercraft shall have attached to his person, clothing, or personal flotation device, a lanyard-type engine cut-off switch.

No person shall operate a personal watercraft:

- a) In the area between a line drawn from Ferguson Point 000 degrees T to the North Shore as the Western limit and a line drawn from Berry Point, 000 degrees T to the North Shore as the Eastern limit.
- b) In a Traffic Separation Zone.
- c) At a speed of more than 5 knots:
 - (i) within 300 metres of a swimming area;
 - (ii) within 300 metres of a launch ramp;
 - (iii) within 300 metres of a vessel at anchor.

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Notwithstanding the above, use of personal watercraft in exhibitions, parades and other similar marine events will be allowed if the organizers of such an event have the written permission of the Vancouver Port Authority for the use of personal watercraft. Such permission may only be granted after the Vancouver Port Authority receives a written request giving a full description of the intended use and details of the event and organizers.

Any person operating a personal watercraft must operate the vessel in a safe and prudent manner, having regard for other waterborne traffic, posted speed and wake restrictions, and all other attendant circumstances so as not to endanger the life, limbs or property of any person.

8.6 TUGS

All vessels shall not attempt to pass between a tug and its tow, nor close astern of the tow since many have a trailing floating line.

8.7 AIRCRAFT

Aircraft on the water must comply with the Rules for Preventing Collisions at Sea. An aircraft traffic control tower is in operation at Granville Square to provide service to aircraft using the inner harbour. The Aircraft Operations Zones marked on the chart are areas of high activity and operators of small craft are required to keep clear.

8.8 FUELING

Refueling of gasoline powered vessels shall only be done at recognized fueling stations with adherence to all posted safety procedures.

8.9 SPEED LIMITS

Within False Creek, Bedwell Bay, Belcarra Bay, Deep Cove, Strathcona Park and Coal Harbour – a maximum speed of five knots is enforced.

Safe Speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

9.0 MARINE	EVENTS	IN THE	HARBOUR

Harbour Operations Manual

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Original

9.0 MARINE EVENTS IN THE HARBOUR

- 1. TOPIC Holding a Marine Event in Vancouver Harbour
- 2. STATEMENT
- 2.1 This Standing Order governs events held within the Harbour of Vancouver and is designed to facilitate the safe and orderly conduct of events.
- 2.2 For the purpose of this Standing Order a marine event includes but is not limited to the following:
 - yacht or boat race
 - water ski or personal water craft
 - swim meet or race
 - sail past
 - sub-aqua meet

- hang gliding or parascending
- demonstration
- any sporting or
- recreational event
- media productions

3. PROCEDURES

- 3.1 The following procedures will be used for all marine events held within Vancouver Harbour including events held on property owned or administered by the Vancouver Port Authority.
- 3.2 No person shall conduct or participate in a yacht or boat race or other aquatic sport, or in any other activity that is liable to interfere with navigation or operations in a harbour, except with written permission of the Authority, which permission may be either general or specific as to place and time.
 - No liability is incurred by the Authority in respect of injury or loss of life or loss of or damage to property resulting from any activity whether or not the Authority has given permission for such activity.
- 3.3 Persons wishing to hold an event in Vancouver Harbour shall apply for and complete an "Application to hold a Marine Event in Vancouver Harbour" form.

Vancouver Port Authority

Harbour Operations Manual

The completed form shall be forwarded to the Vancouver Harbour Master for approval. Allow 5 working days for the application to be processed.

Organizers shall obtain the approval in writing of the Authority prior to the event.

If approval is given, the organizers shall abide by any requirements listed on the approved application form.

- 4.0 In all cases, the Vancouver Port Authority will require that the organizers obtain Comprehensive General Liability insurance in an amount and coverage acceptable to the Authority. The Authority is to be named as co-insured.
- 5.0 EFFECTIVE DATE: March 3, 1995

10.0 DERELICT, ABANDONED OR ILLEGALLY MOORED VESSELS

10.0 DERELICT, ABANDONED OR ILLEGALLY MOORED VESSELS

The Vancouver Port Authority has management and control of the Vancouver Harbour, which may include the establishment of places of moorage within the harbour.

- 1. No vessel shall, except in an emergency, moor or anchor without approval. and then only at such place and in such manner as directed.
- 2. Where the owner or person in charge of a vessel in a harbour is not available or refuses or neglects to obey any order to move the vessel, the Harbour Master's Office may, at the risk and expense of the owner of the vessel:
 - (a) take possession of and move the vessel;
 - (b) use any means and force reasonably necessary to move the vessel;
 - (c) order tugs to move the vessel; and
 - (d) berth, anchor or moor the vessel at any place satisfactory to the Authority.

11.0 TANKER OPERATIONS

11.0 TANKER OPERATIONS

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11.1 DEFINITION

The term Tanker applies to all carriers of bulk petroleum or chemical products or other liquid cargoes.

11.2 REPORTING

The Master of a tanker in a loaded or non-gas free condition must obtain permission from the Harbour Master's Office to enter the Port limits.

In order to receive permission, the Master shall provide the Harbour Master's Office with the following information at least two working days in advance of the vessel's arrival:

- A complete list of all bulk liquid cargo on board;
- The generic (technical) name of each product;
- I.M.O. Class of each product when applicable;
- Tank stowage and quantities of each product;
- Slops remaining on board;
- Products to be loaded, discharged and intended terminal rotation (if applicable);
- Vessels estimated time of arrival and estimated time of departure.

Small locally owned tankers that regularly trade in and out of Vancouver harbour may be exempt from these reporting procedures.

11.2.1 COMBINATION CARRIERS - OIL, BULK, ORE

The above requirements shall not apply if either of the following criteria are met:

(1) The vessel's master or his representative produces, before arrival, a properly completed Certificate of Class satisfying the Harbour Master's Office that the vessel has been re-classified for the Carriage of Dry-Bulk Cargoes only.

Or

(2) There is produced to the Harbour Master's satisfaction, a letter from the vessel's master or his representative, stating that the vessel has not carried oil cargoes of any description since the last "Quadrennial Survey".

Prior to arriving at the loading berth for dry bulk cargo the vessel must have:

- (a) All cargo compartments designed for dry bulk loading thoroughly cleaned and declared gas free. All other holds to be gas free, inerted or ballasted.
- (b) All wing or side tanks which have previously contained oil, but are not used for dry bulk must be thoroughly cleaned, gas freed or inerted.
- (c) Oil slop tanks unless gas free must be inerted to maintain a maximum of 8 percent oxygen content in the system at constant positive pressure. The conditions referred to in b) and c) above shall be maintained during the ship's stay in port.
- (d) A certificate from a qualified marine chemist for the current conditions existing under items a), b) and c) as of time of arrival at Vancouver is required. This certificate shall be valid for a period of 48 hours before entering a loading berth. Should entry be delayed beyond that time, than a further check will be required within 48 hours of the vessel proceeding of the loading berth.

11.3 LIGHTERING

Conditions for cargo lightering to tankers at anchor:

- 1. The lightering of petroleum products to tankers at anchor introduces an additional risk of pollution incidents by the double handling of the product. Therefore it will only be allowed at the discretion of the Vancouver Port Authority.
- 2. Permission to lighter may be granted after every effort has been made, including the arrangement of loading rotation, to ensure that lightering is the only possible means of loading.
- 3. Oil lightering operations to tankers will only take place at anchorages K, L or M.
- 4. Prior to pumping product the form "Oil Safety Check List" must be completed by the receiving vessel and the delivery barge.
- 5. When transferring petroleum products, a boat provided with a minimum crew of two, equipped with cleanup materials and sufficient containment boom to surround the ship and barge, will stand by at the ship at all times during transfer operation.
- 6. When the product being lightered is diesel fuel oil or heavier, the containment boom must be deployed around the ship and barge at all times whilst product is being transferred.
- 7. Only product being lightered from the local oil pipeline terminals will be considered for transfer at anchor. Product being barged in for export from other sources, such as the United States, will not be allowed to lighter to tankers at anchor.
- 8. Request, in writing, from the ship's agent will be considered for the approval of a transfer operation only after proof that all other alternatives have been exhausted.

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9. These conditions may be altered by the Vancouver Port Authority at any time without notice.

10. The Vancouver Port Authority may terminate the practice of lightering at its discretion without consultation.

11.4 ANCHORING

No tanker will anchor between First and Second Narrows, except with approval from the Harbour Master's Office.

11.5 BUNKERING AND PROVISIONING

Bunkering and Provisioning will not be permitted during cargo operations.

12.0 MISCELLANEOUS

12.0 MISCELLANEOUS

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12.1 BOLLARDS

Centerm

The only berth that may be used for bollard pushing/pulling is Centerm berth number 3.

The only bollards on Centerm 3 that may be used for pulling on are the five at the centre of the berth (i.e. the three most easterly ones). The three most westerly ones are not to be used. The central ones which can be used will be painted white, allowing for easier identification. These bollards are rated at 50 tonnes and must not be subjected to forces that exceed this limit.

Vessels may push on the berth face but only underneath one of the bollards described previously, i.e. the ones that will be painted white. There is no maximum limit to the thrust that can be exerted on the berth face while pushing. However, we would ask that it be restricted to the minimum time necessary and if possible to an hour or so either side of high water.

Delta Port

The use of the southernmost bollard to warp vessels on No. 2 berth is restricted as follows:

- a) no more than 3" diameter mooring ropes are used to the bollard, and
- b) that the displacement of the vessel does not exceed 175,000 tonnes at the time of warping.

12.2 CALIBRATING

Vessels over 92m (300 ft.) in length, and all Tankers, whilst under way, must calibrate Radio Direction Finding Equipment or adjust compasses west of First Narrows.

12.3 CRUISE TERMINAL GANGWAY PROCEDURES

Vessels are to remain securely made fast to the dock at all times the gangways are attached. No singling up for departure is to take place unless properly trained personnel are attending the gangway ready to disengage from the vessel.

Prior to the vessel moving off the berth, or making a close approach to the berth, the gangways are to be stowed as follows:

- a) Canada Place gangways SAB's and CAB's folded, and gangway stowed against the building;
- b) Centerm no part of the gangways to be closer than 20 feet to the dock face.

Prior to singling up, the vessel must release any safety lines or nets that may have been attached to the SAB.

12.4 DIVING OPERATIONS

All persons wishing to perform recreational or commercial diving in the Port of Vancouver must attain permission from the Harbour Master's Office. The only exception to this will be diving within the boundaries of dedicated Dive Sites. (i.e. the shores of Cates Park and Twin Islands).

The Harbour Master's Office may veto proposed diving operations where these conflict with the safe operations of the Port.

The dive site shall be properly identified by appropriate buoys, flags and lights.

12.5 DRY CARGO LIGHTERING AT ANCHORAGE

- 1. The lightering of dry cargo at anchor introduces an additional risk of pollution incidents by the double handling of the product. This also prolongs the usage of anchorages. Therefore it will only be allowed at the discretion of the Vancouver Port Authority.
- 2. Permission may be granted when all precautions are made to assure there is no spillage of cargo into water (i.e. tarps from ship to barge).

12.6 ESCORTS

Tankers The Harbour Master's launch will be available to clear traffic

and provide escort services through First and Second Narrows.

Cruise Ships During high traffic times the Harbour Master's launch will be

available to provide escorts through First Narrows.

Other Vessels In extraordinary circumstances the Harbour Master's launch will

be available to provide escorts through Vancouver harbour.

12.7 LIFEBOAT EXERCISES AND FERRYING

Lifeboat Exercises:

The Harbour Master's Office is aware of the various national requirements for the exercising of lifeboats at designated intervals and will accommodate all such activities.

Prior to conducting Lifeboat Exercises the vessel must advise the Harbour Master's Office through MCTS of their intentions including start and finish time.

If Lifeboats are lowered into the water, cast off from the falls and exercise under oars or power, they may do so provided that they remain within 50m of their vessel. Vessels at Canada Place are to ensure their lifeboats remain well clear of seabus lanes and seaplane landing areas.

Ferrying:

The prefered practice is to use locally procured water taxis. If ships boats are used to ferry crew to and from ships anchored in English Bay they must only land and embark persons at 'E' float in the fisheries Terminal on the south shore of False Creek east of Burrard Street Bridge. This is the only Canada Customs approved landing place. Only vessels anchored in English Bay may use their own boats for ferrying.

Ship's crews must not land at private marinas or the Kitsilano Coast Guard Base. Ship's boat engines must be fitted with an efficient muffler silencer system that complies with recognized noise control standards.

12.8 LOG PROCEDURES

The following procedures are to be followed for the storage, handling and movement of logs within the Port of Vancouver:

- 1. Up to 80 sections of logs may be stored at the Navy Buoys. Logs in excess of that quantity must be stored at other log storage locations, including Chief George's Buoy. Tugs delivering logs to the Port of Vancouver must notify MCTS "Vancouver Traffic" of the number of sections being delivered and the intended storage site. MCTS will provide the tug with the current number of sections stored at the Navy Buoys. If the number of sections at the buoy, plus the intended delivery, exceeds 80 sections then the delivering tug must make alternate arrangements and shall notify MCTS of their intentions.
- 2. Harbour tugs shall inform MCTS of the number of sections being moved to/from the Navy Buoys. When sections are removed from the Navy Buoys it is the responsibility of the harbour tug removing those sections to ensure that the remaining sections are properly re-secured.
- 3. MCTS shall maintain a running inventory tally of the number of sections at the Navy Buoys. Burrard Towing, Seaspan and the Kla-wichen shall visually inventory the number of sections on a regular basis and shall report that number to MCTS.
- 4. Sections of logs may not be left floating unattended for more than 15 minutes and shall not be left unattended west of Centerm 6.
- 5. Tugs handling sections or boomsticks at Campbell Avenue shall maintain clear access to either the VPA spoil ground or the VPA Campbell Ave Floats at all times.
- 6. Vessels requesting a minimum wash for log handling shall pass that request to MCTS.
- 7. Boomsticks stored at the Navy Buoys must be properly secured at all times.

12.9 MILITARY VESSELS

No ship or vessel, including any pleasure yacht, vessel of a non-commercial activity, shall come within 100 metres of any military ship or vessel, whether Canadian or foreign, while moving in the Harbour of Vancouver.

12.10 SHIP'S GARBAGE

Ship's garbage must be retained on board in suitable containers with properly fitted covers. Garbage removal services are available and must be used to prevent more than a minimum of accumulation of garbage on board prior to sailing.

Garbage, dunnage and scrap materials must not be dumped in Canadian Territorial Waters.

12.11 SPEED LIMITS

Every vessel in the harbour of Vancouver shall at all times:

- 1. Move at a 'Safe Speed' so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.
- 2. Have due regard for small craft, towing, log loading, bunkering, diving operations.
- 3. Obey five knot speed limit within False Creek, Bedwell Bay, Belcarra Bay, Deep Cove, Strathcona Park and Coal Harbour.

12.12 WELDING AND HOT WORK

All Hot Work may only commence when a 'Welding and Hot Work Permit' is completed in its entirety and faxed to the Harbour Master's Office at 665-9099. All Question on the Permit must be answered in the affirmative.



VANCOUVER PORT AUTHORITY WELDING AND HOT WORK PERMIT

Company/Vessel: _____ Date/Time: _____

HM.MAR 99

Berth/Anchorage:
Instructions for completion:
The Safety of Operations requires that all questions be answered in the affirmative. In the case of a negative answer or doubt about the location, or nature of the hot work, the welding or other hot work is not to be carried out without the permission of the Harbour Master.
No work is to be commenced until this form is completed in its entirety. The completed copy must be faxed to the Harbour Master's Office at 665-9099. The original is to be on board at the job site available for inspection. In cases where permission is required, then the Harbour Master is to be contacted at 665-9086 during normal office hours or through 666-6011 evenings or weekends.
If a representative of the Harbour Master attends on board when burning and or hot work are taking place and finds that a copy of the form has not been completed nor its requirements adhered to, he will order the operation stopped until all requirements of the form have been carried out.
Failure to comply with the requirements may result in prosecution or the imposition of a penalty.
Location on Board
Estimated Duration of WorkHrs.
From: To:
Nature of Welding or Hot Work

	Question	Yes	No
1.	Will the area be dust free?		
2.	Will the area be gas free?		
3.	Will the area be well clear of storage of flammable liquids, solids and gases?		
4.	Are fire lines charged?		
5.	Is fire fighting equipment on site ready to use?		

Requirement:

A fire watchman to be employed to observe the effect of hot work on the other side of bulkheads etc.

A fire watcher to remain on duty for 30 minutes after completion of hot work.

Declaration:

We have answered the questions on the check list and have satisfied ourselves that the entries we have made are correct to the best of our knowledge.

Name:	
Position:	
	Master/Agent/Company/Representative
Signature	o: